

10/562081

WO 2005/003764

PCT/EP2004/006971  
1 AP20 Rec'd PCT/PTO 23 DEC 2005

SEQUENCE LISTING

<110> ORION DIAGNOSTICA OY

<120> ASSAY

<130> N88837A JHS

<140>

<141>

<150> GB 0315291.5

<151> 2003-06-30

<160> 36

<170> PatentIn version 3.0

<210> 1

<211> 126

<212> PRT

<213> Homo sapiens

<400> 1

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Asn Pro Met Tyr Asn Ala Val Ser Asn Ala Asp Leu Met Asp Phe Lys
1          5          10          15
Asn Leu Leu Asp His Leu Glu Glu Lys Met Pro Leu Glu Asp Glu Val
20          25          30
Val Pro Pro Gln Val Leu Ser Glu Pro Asn Glu Glu Ala Gly Ala Ala
35          40          45
Leu Ser Pro Leu Pro Glu Val Pro Pro Trp Thr Gly Glu Val Ser Pro
50          55          60
Ala Gln Arg Asp Gly Gly Ala Leu Gly Arg Gly Pro Trp Asp Ser Ser
65          70          75          80
Asp Arg Ser Ala Leu Leu Lys Ser Lys Leu Arg Ala Leu Leu Thr Ala
85          90          95
Pro Arg Ser Leu Arg Arg Ser Ser Cys Phe Gly Gly Arg Met Asp Arg
100         105         110
Ile Gly Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Arg Tyr
115         120         125

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<210> 2

<211> 28

<212> PRT

<213> Homo sapiens

<400> 2

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Ser Leu Arg Arg Ser Ser Cys Phe Gly Gly Arg Met Asp Arg Ile Gly
1          5          10          15
Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Arg Tyr
20          25

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<210> 3

<211> 98

<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3

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Asn Pro Met Tyr Asn Ala Val Ser Asn Ala Asp Leu Met Asp Phe Lys
1      5      10      15
Asn Leu Leu Asp His Leu Glu Glu Lys Met Pro Leu Glu Asp Glu Val
20      25      30
Val Pro Pro Gln Val Leu Ser Glu Pro Asn Glu Glu Ala Gly Ala Ala
35      40      45
Leu Ser Pro Leu Pro Glu Val Pro Pro Trp Thr Gly Glu Val Ser Pro
50      55      60
Ala Gln Arg Asp Gly Gly Ala Leu Gly Arg Gly Pro Trp Asp Ser Ser
65      70      75      80
Asp Arg Ser Ala Leu Lys Ser Lys Leu Arg Ala Leu Leu Thr Ala
85      90      95
Pro Arg

```

&lt;210&gt; 4

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4

```

His Pro Leu Gly Ser Pro Gly Ser Ala Ser Asp Leu Glu Thr Ser Gly
1      5      10      15
Leu Gln Glu Gln Arg Asn His Leu Gln Gly Lys Leu Ser Glu Leu Gln
20      25      30
Val Glu Gln Thr Ser Leu Glu Pro Leu Gln Glu Ser Pro Arg Pro Thr
35      40      45
Gly Val Trp Lys Ser Arg Glu Val Ala Thr Glu Gly Ile Arg Gly His
50      55      60
Arg Lys Met Val Leu Tyr Thr Leu Arg Ala Pro Arg Ser Pro Lys Met
65      70      75      80
Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp Arg Ile Ser Ser
85      90      95
Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His
100      105

```

&lt;210&gt; 5

&lt;211&gt; 32

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5

```

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp
1      5      10      15
Arg Ile Ser Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His
20      25      30

```

&lt;210&gt; 6

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6

```

His Pro Leu Gly Ser Pro Gly Ser Ala Ser Asp Leu Glu Thr Ser Gly

```

|             |             |             |            |            |            |           |            |     |
|-------------|-------------|-------------|------------|------------|------------|-----------|------------|-----|
| <400>       | 10          |             |            |            |            |           |            |     |
| caccgcgctgg | gcagccccgg  | ttcagcctcg  | gacttgga   | aa         | cg         | tccggggtt | acaggagcag | 60  |
| cgcaaccatt  | tgcaggggcaa | actgtcggag  | ctgcaggtgg | agcagacatc | cctggagccc |           |            | 120 |
| ctccaggaga  | gcccccgctc  | cacaggtgtc  | tggaagtccc | gggaggtagc | caccgagggc |           |            | 180 |
| atccgtgggc  | accgcaaaat  | gggtcctctac | accctgcgga | caccacgaag | ccccaagatg |           |            | 240 |
| gtgcaagggg  | ctggctgctt  | tgggaggaag  | atggaccgga | tcagctcctc | cagtggcctg |           |            | 300 |

ggctgcaaag tgctgaggcg gcat

324

<210> 11

<211> 96

<212> DNA

<213> Homo sapiens

<400> 11

agccccaaga tgggtgcaagg gtctggctgc tttgggagga agatggaccg gatcagctcc 60  
tccagtggcc tgggctgcaa agtgctgagg cggcat 96

<210> 12

<211> 228

<212> DNA

<213> Homo sapiens

<400> 12

caccgcgtgg gcagccccgg ttcagcctcg gacttggaaa cgtccggggtt acaggagcag 60  
cgcaaccatt tgcagggcaa actgtcggag ctgcagggtgg agcagacatc cctggagccc 120  
ctccaggaga gccccgtcc cacaggtgtc tggaagtccc gggaggtagc caccgagggc 180  
atccgtgggc accgcaaat ggtcctctac accctgcggg caccacga 228

<210> 13

<211> 25

<212> PRT

<213> Artificial sequence

<400> 13

Ser Gly Leu Gln Glu Gln Arg Asn His Leu Arg Ser Ala Leu Leu Lys  
1 5 10 15  
Ser Lys Leu Arg Ala Leu Leu Thr Ala  
20 25

<210> 14

<211> 107

<212> PRT

<213> Artificial sequence

<400> 14

His Pro Leu Gly Ser Pro Gly Ser Ala Ser Asp Leu Glu Thr Ser Gly  
1 5 10 15  
Leu Gln Glu Gln Arg Asn His Leu Gln Gly Lys Leu Ser Glu Leu Gln  
20 25 30  
Val Glu Gln Thr Ser Glu Asp Glu Val Val Pro Pro Gln Val Leu Ser  
35 40 45  
Glu Pro Asn Glu Glu Ala Gly Ala Ala Leu Ser Pro Leu Pro Glu Val  
50 55 60  
Pro Pro Trp Thr Gly Glu Val Ser Pro Ala Gln Arg Asp Gly Gly Ala  
65 70 75 80  
Leu Gly Arg Gly Pro Trp Asp Ser Ser Asp Arg Ser Ala Leu Leu Lys  
85 90 95  
Ser Lys Leu Arg Ala Leu Leu Thr Ala Pro Arg  
100 105

<210> 15  
 <211> 81  
 <212> PRT  
 <213> Artificial sequence

<400> 15

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Ser Asp Leu Glu Thr Ser Gly Leu Gln Glu Gln Arg Asn His Leu Gln
1          5          10          15
Gly Lys Leu Ser Asp His Leu Glu Glu Lys Met Pro Leu Glu Asp Glu
20          25          30
Val Val Pro Pro Gln Val Leu Ser Glu Pro Asn Glu Glu Ala Gly Ala
35          40          45
Ala Leu Ser Pro Leu Pro Glu Val Pro Pro Trp Thr Gly Glu Val Ser
50          55          60
Pro Ala Gln Arg Asp Gly Gly Ala Leu Gly Arg Gly Pro Trp Asp Ser
65          70          75          80
Ser
  
```

<210> 16  
 <211> 4  
 <212> PRT  
 <213> Artificial sequence

<400> 16

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Gly Lys Tyr Gly
1
  
```

<210> 17  
 <211> 174  
 <212> PRT  
 <213> Artificial sequence

<400> 17

```

His Pro Leu Gly Ser Pro Gly Ser Ala Ser Asp Leu Glu Thr Ser Gly
1          5          10          15
Leu Gln Glu Gln Arg Asn His Leu Gln Gly Lys Leu Ser Glu Leu Gln
20          25          30
Val Glu Gln Thr Ser Leu Glu Pro Leu Gln Glu Ser Pro Arg Pro Thr
35          40          45
Gly Val Trp Lys Ser Arg Glu Val Ala Thr Glu Gly Ile Arg Gly His
50          55          60
Arg Lys Met Val Leu Tyr Thr Leu Arg Ala Pro Arg Asn Pro Met Tyr
65          70          75          80
Asn Ala Val Ser Asn Ala Asp Leu Met Asp Phe Lys Asn Leu Leu Asp
85          90          95
His Leu Glu Glu Lys Met Pro Leu Glu Asp Glu Val Val Pro Pro Gln
100         105         110
Val Leu Ser Glu Pro Asn Glu Glu Ala Gly Ala Ala Leu Ser Pro Leu
115         120         125
Pro Glu Val Pro Pro Trp Thr Gly Glu Val Ser Pro Ala Gln Arg Asp
130         135         140
Gly Gly Ala Leu Gly Arg Gly Pro Trp Asp Ser Ser Asp Arg Ser Ala
145         150         155         160
Leu Leu Lys Ser Lys Leu Arg Ala Leu Leu Thr Ala Pro Arg
165         170
  
```

<210> 18

<211> 41  
 <212> PRT  
 <213> Artificial sequence

<400> 18

```
Ser Asp Leu Glu Thr Ser Gly Leu Gln Glu Gln Arg Asn His Leu Gln
      5                                10                15
Gly Lys Leu Ser Gly Glu Val Ser Pro Ala Gln Arg Asp Gly Gly Ala
      20                25                30
Leu Gly Arg Gly Pro Trp Asp Ser Ser
      35                40
```

<210> 19  
 <211> 234  
 <212> PRT  
 <213> Artificial sequence

<400> 19

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His Pro Leu Gly Ser Pro Gly Ser Ala Ser Asp Leu Glu Thr Ser Gly
      5                                10                15
Leu Gln Glu Gln Arg Asn His Leu Gln Gly Lys Leu Ser Glu Leu Gln
      20                25                30
Val Glu Gln Thr Ser Leu Glu Pro Leu Gln Glu Ser Pro Arg Pro Thr
      35                40                45
Gly Val Trp Lys Ser Arg Glu Val Ala Thr Glu Gly Ile Arg Gly His
      50                55                60
Arg Lys Met Val Leu Tyr Thr Leu Arg Ala Pro Arg Ser Pro Lys Met
      65                70                75                80
Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp Arg Ile Ser Ser
      85                90                95
Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His Asn Pro Met Tyr
      100               105               110
Asn Ala Val Ser Asn Ala Asp Leu Met Asp Phe Lys Asn Leu Leu Asp
      115               120               125
His Leu Glu Glu Lys Met Pro Leu Glu Asp Glu Val Val Pro Pro Gln
      130               135               140
Val Leu Ser Glu Pro Asn Glu Glu Ala Gly Ala Ala Leu Ser Pro Leu
      145               150               155               160
Pro Glu Val Pro Pro Trp Thr Gly Glu Val Ser Pro Ala Gln Arg Asp
      165               170               175
Gly Gly Ala Leu Gly Arg Gly Pro Trp Asp Ser Ser Asp Arg Ser Ala
      180               185               190
Leu Leu Lys Ser Lys Leu Arg Ala Leu Leu Thr Ala Pro Arg Ser Leu
      195               200               205
Arg Arg Ser Ser Cys Phe Gly Gly Arg Met Asp Arg Ile Gly Ala Gln
      210               215               220
Ser Gly Leu Gly Cys Asn Ser Phe Arg Tyr
      225               230
```

<210> 20  
 <211> 31  
 <212> PRT  
 <213> Artificial sequence

<400> 20

```
Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp
      5                                10                15
Arg Ile Gly Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Arg Tyr
```

20

25

30

<210> 21  
 <211> 75  
 <212> DNA  
 <213> Artificial sequence

<400> 21  
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 gcgctgctca ctgcc 75

<210> 22  
 <211> 321  
 <212> DNA  
 <213> Artificial sequence

<400> 22  
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 cgcaaccatt tgcagggcaa actgtcggag ctgcaggttg agcagacatc cgaagatgag 120  
 gtcgtgcccc cacaagtgtc cagtgcggcg aatgaagaag cgggggctgc tctcagcccc 180  
 ctccctgagg tgcctccctg gaccggggaa gtcagcccag cccagagaga tggaggtgcc 240  
 ctccggcggg gcccctggga ctctctgat cgatctgccc tcctaaaaag caagctgagg 300  
 gcgctgctca ctgcccctcg g 321

<210> 23  
 <211> 241  
 <212> DNA  
 <213> Artificial sequence

<400> 23  
 tcggacttgg aaacgtccgg gttacaggag cagcgcaacc atttgcaggg caaactgtga 60  
 ccatttgga gaaaagatgc ctttagaaga tgaggtcgtg cccccacaag tgctcagtga 120  
 gccgaatgaa gaagcggggg ctgctctcag cccctccct gaggtgcctc cctggaccgg 180  
 ggaagtcagc ccagcccaga gagatggagg tgccctcggg cggggcccct gggactcctc 240  
 t 241

<210> 24  
 <211> 522  
 <212> DNA  
 <213> Artificial sequence

<400> 24  
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 cgcaaccatt tgcagggcaa actgtcggag ctgcaggttg agcagacatc cctggagccc 120  
 ctccaggaga gccccgtcc cacaggtgtc tggaagtccc gggaggtagc caccgagggc 180  
 atccgtgggc accgcaaat ggtcctctac accctgcggg caccacgaaa tcccatgtac 240  
 aatgcogtgt ccaacgcaga cctgatggat ttcaagaatt tgctggacca tttggaagaa 300  
 aagatgcctt tagaagatga ggtcgtgccc ccacaagtgc tcagtgcagc gaatgaagaa 360  
 gcgggggctg ctctcagccc cctccctgag gtgcctccct ggaccgggga agtcagccca 420  
 gccagagag atggaggtgc cctcgggagg ggcccctggg actcctctga tcgatctgcc 480  
 ctctaaaaa gcaagctgag ggcgtgctc actgcccctc gg 522

<210> 25  
 <211> 123  
 <212> DNA  
 <213> Artificial sequence

&lt;400&gt; 25

tcggacttgg aaacgtccgg gttacaggag cagcgcaacc atttgcaggg caaactgtcg 60  
 ggggaagtca gcccgagccca gagagatgga ggtgcctctg ggcggggccc ctgggactcc 120  
 tct 123

&lt;210&gt; 26

&lt;211&gt; 123

&lt;212&gt; DNA

&lt;213&gt; Artificial sequence

&lt;400&gt; 26

cacccgctgg gcagccccgg ttcagcctcg gacttggaaa cgtccgggtt acaggagcag 60  
 cgcaaccatt tgcagggcaa actgtcggag ctgcagggtg agcagacatc cctggagccc 120  
 ctccaggaga gccccgtcc cacagggtgc tggaagtccc gggaggtagc caccgagggc 180  
 atccgtgggc accgcaaaat ggtcctctac accctgcggg caccacgaag ccccaagatg 240  
 gtgcaagggt ctggctgctt tgggaggaag atggaccgga tcagctcctc cagtggcctg 300  
 ggctgcaaag tgctgaggcg gcataatccc atgtacaatg ccgtgtccaa cgcagacctg 360  
 atggatttca agaatttgct ggaccatttg gaagaaaaga tgcctttaga agatgagggtc 420  
 gtgccccac aagtgtctcag tgagccgaat gaagaagcgg gggctgctct cagccccctc 480  
 cctgaggtgc ctccctggac cggggaagtc agccagccc agagagatgg aggtgccctc 540  
 gggcgggggc cctgggactc ctctgatcga tctgccctcc taaaaagcaa gctgagggcg 600  
 ctgctcactg cccctcggag cctgcggaga tccagctgct tcgggggcag gatggacagg 660  
 attggagccc agagcggact gggctgtaac agcttccggt ac 702

&lt;210&gt; 27

&lt;211&gt; 93

&lt;212&gt; DNA

&lt;213&gt; Artificial sequence

&lt;400&gt; 27

agccccaga tgggtcaagg gtctggctgc tttgggagga agatggacag gattggagcc 60  
 cagagcggac tgggctgtaa cagcttccg tac 93

&lt;210&gt; 28

&lt;211&gt; 27

&lt;212&gt; DNA

&lt;213&gt; Artificial sequence

&lt;400&gt; 28

ggggatccca cccgctgggc agccccg 27

&lt;210&gt; 29

&lt;211&gt; 24

&lt;212&gt; DNA

&lt;213&gt; Artificial sequence

&lt;400&gt; 29

gctctagagg atgtctgctc cacc 24

&lt;210&gt; 30

&lt;211&gt; 24

&lt;212&gt; DNA

&lt;213&gt; Artificial sequence

&lt;400&gt; 30

gctctagaga agatgaggtc gtgc 24



<210> 31  
 <211> 27  
 <212> DNA  
 <213> Artificial sequence

<400> 231  
 gcgaattctc accgaggggc agtgagc

<210> 32  
 <211> 25  
 <212> DNA  
 <213> Artificial sequence

<400> 32  
 gcggatccta ccaccgctg ggcag

<210> 33  
 <211> 1061  
 <212> PRT  
 <213> Homo sapiens

<400> 33

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Pro | Gly | Pro | Arg | Arg | Pro | Ala | Gly | Ser | Arg | Leu | Arg | Leu | Leu | Leu | 1   | 5   | 10  | 15  |
| Leu | Leu | Leu | Leu | Pro | Pro | Leu | Leu | Leu | Leu | Leu | Arg | Gly | Ser | His | Ala | 20  | 25  | 30  |     |
| Gly | Asn | Leu | Thr | Val | Ala | Val | Val | Leu | Pro | Leu | Ala | Asn | Thr | Ser | Tyr | 35  | 40  | 45  |     |
| Pro | Trp | Ser | Trp | Ala | Arg | Val | Gly | Pro | Ala | Val | Glu | Leu | Ala | Leu | Ala | 50  | 55  | 60  |     |
| Gln | Val | Lys | Ala | Arg | Pro | Asp | Leu | Leu | Pro | Gly | Trp | Thr | Val | Arg | Thr | 65  | 70  | 75  | 80  |
| Val | Leu | Gly | Ser | Ser | Glu | Asn | Ala | Leu | Gly | Val | Cys | Ser | Asp | Thr | Ala | 85  | 90  | 95  |     |
| Ala | Pro | Leu | Ala | Ala | Val | Asp | Leu | Lys | Trp | Glu | His | Asn | Pro | Ala | Val | 100 | 105 | 110 |     |
| Phe | Leu | Gly | Pro | Gly | Cys | Val | Tyr | Ala | Ala | Ala | Pro | Val | Gly | Arg | Phe | 115 | 120 | 125 |     |
| Thr | Ala | His | Trp | Arg | Val | Pro | Leu | Leu | Thr | Ala | Gly | Ala | Pro | Ala | Leu | 130 | 135 | 140 |     |
| Gly | Phe | Gly | Val | Lys | Asp | Glu | Tyr | Ala | Leu | Thr | Thr | Arg | Ala | Gly | Pro | 145 | 150 | 155 | 160 |
| Ser | Tyr | Ala | Lys | Leu | Gly | Asp | Phe | Val | Ala | Ala | Leu | His | Arg | Arg | Leu | 165 | 170 | 175 |     |
| Gly | Trp | Glu | Arg | Gln | Ala | Leu | Met | Leu | Tyr | Ala | Tyr | Arg | Pro | Gly | Asp | 180 | 185 | 190 |     |
| Glu | Glu | His | Cys | Phe | Phe | Leu | Val | Glu | Gly | Leu | Phe | Met | Arg | Val | Arg | 195 | 200 | 205 |     |
| Asp | Arg | Leu | Asn | Ile | Thr | Val | Asp | His | Leu | Glu | Phe | Ala | Glu | Asp | Asp | 210 | 215 | 220 |     |
| Leu | Ser | His | Tyr | Thr | Arg | Leu | Leu | Arg | Thr | Met | Pro | Arg | Lys | Gly | Arg | 225 | 230 | 235 | 240 |
| Val | Ile | Tyr | Ile | Cys | Ser | Ser | Pro | Asp | Ala | Phe | Arg | Thr | Leu | Met | Leu | 245 | 250 | 255 |     |
| Leu | Ala | Leu | Glu | Ala | Gly | Leu | Cys | Gly | Glu | Asp | Tyr | Val | Phe | Phe | His | 260 | 265 | 270 |     |

Leu Asp Ile Phe Gly Gln Ser Leu Gln Gly Gly Gln Gly Pro Ala Pro  
 275 280 285  
 Arg Arg Pro Trp Glu Arg Gly Asp Gly Gln Asp Val Ser Ala Arg Gln  
 290 295 300  
 Ala Phe Gln Ala Ala Lys Ile Ile Thr Tyr Lys Asp Pro Asp Asn Pro  
 305 310 315 320  
 Glu Tyr Leu Glu Phe Leu Lys Gln Leu Lys His Leu Ala Tyr Glu Gln  
 325 330 335  
 Phe Asn Phe Thr Met Glu Asp Gly Leu Val Asn Thr Ile Pro Ala Ser  
 340 345 350  
 Phe His Asp Gly Leu Leu Leu Tyr Ile Gln Ala Val Thr Glu Thr Leu  
 355 360 365  
 Ala His Gly Gly Thr Val Thr Asp Gly Glu Asn Ile Thr Gln Arg Met  
 370 375 380  
 Trp Asn Arg Ser Phe Gln Gly Val Thr Gly Tyr Leu Lys Ile Asp Ser  
 385 390 395 400  
 Ser Gly Asp Arg Glu Thr Asp Phe Ser Leu Trp Asp Met Asp Pro Glu  
 405 410 415  
 Asn Gly Ala Phe Arg Val Val Leu Asn Tyr Asn Gly Thr Ser Gln Glu  
 420 425 430  
 Leu Val Ala Val Ser Gly Arg Lys Leu Asn Trp Pro Leu Gly Tyr Pro  
 435 440 445  
 Pro Pro Asp Ile Pro Lys Cys Gly Phe Asp Asn Glu Asp Pro Ala Cys  
 450 455 460  
 Asn Gln Asp His Leu Ser Thr Leu Glu Val Leu Ala Leu Val Gly Ser  
 465 470 475 480  
 Leu Ser Leu Leu Gly Ile Leu Ile Val Ser Phe Phe Ile Tyr Arg Lys  
 485 490 495  
 Met Gln Leu Glu Lys Glu Leu Ala Ser Glu Leu Trp Arg Val Arg Trp  
 500 505 510  
 Glu Asp Val Glu Pro Ser Ser Leu Glu Arg His Leu Arg Ser Ala Gly  
 515 520 525  
 Ser Arg Leu Thr Leu Ser Gly Arg Gly Ser Asn Tyr Gly Ser Leu Leu  
 530 535 540  
 Thr Thr Glu Gly Gln Phe Gln Val Phe Ala Lys Thr Ala Tyr Tyr Lys  
 545 550 555 560  
 Gly Asn Leu Val Ala Val Lys Arg Val Asn Arg Lys Arg Ile Glu Leu  
 565 570 575  
 Thr Arg Lys Val Leu Phe Glu Leu Lys His Met Arg Asp Val Gln Asn  
 580 585 590  
 Glu His Leu Thr Arg Phe Val Gly Ala Cys Thr Asp Pro Pro Asn Ile  
 595 600 605  
 Cys Ile Leu Thr Glu Tyr Cys Pro Arg Gly Ser Leu Gln Asp Ile Leu  
 610 615 620  
 Glu Asn Glu Ser Ile Thr Leu Asp Trp Met Phe Arg Tyr Ser Leu Thr  
 625 630 635 640  
 Asn Asp Ile Val Lys Gly Met Leu Phe Leu His Asn Gly Ala Ile Cys  
 645 650 655  
 Ser His Gly Asn Leu Lys Ser Ser Asn Cys Val Val Asp Gly Arg Phe  
 660 665 670  
 Val Leu Lys Ile Thr Asp Tyr Gly Leu Glu Ser Phe Arg Asp Leu Asp  
 675 680 685  
 Pro Glu Gln Gly His Thr Val Tyr Ala Lys Lys Leu Trp Thr Ala Pro  
 690 695 700  
 Glu Leu Leu Arg Met Ala Ser Pro Pro Val Arg Gly Ser Gln Ala Gly  
 705 710 715 720  
 Asp Val Tyr Ser Phe Gly Ile Ile Leu Gln Glu Ile Ala Leu Arg Ser  
 725 730 735  
 Gly Val Phe His Val Glu Gly Leu Asp Leu Ser Pro Lys Glu Ile Ile  
 740 745 750

Glu Arg Val Thr Arg Gly Glu Gln Pro Pro Phe Arg Pro Ser Leu Ala  
 755 760 765  
 Leu Gln Ser His Leu Glu Glu Leu Gly Leu Leu Met Gln Arg Cys Trp  
 770 775 780  
 Ala Glu Asp Pro Gln Glu Arg Pro Pro Phe Gln Gln Ile Arg Leu Thr  
 785 790 795 800  
 Leu Arg Lys Phe Asn Arg Glu Asn Ser Ser Asn Ile Leu Asp Asn Leu  
 805 810 815  
 Leu Ser Arg Met Glu Gln Tyr Ala Asn Asn Leu Glu Glu Leu Val Glu  
 820 825 830  
 Glu Arg Thr Gln Ala Tyr Leu Glu Glu Lys Arg Lys Ala Glu Ala Leu  
 835 840 845  
 Leu Tyr Gln Ile Leu Pro His Ser Val Ala Glu Gln Leu Lys Arg Gly  
 850 855 860  
 Glu Thr Val Gln Ala Glu Ala Phe Asp Ser Val Thr Ile Tyr Phe Ser  
 865 870 875 880  
 Asp Ile Val Gly Phe Thr Ala Leu Ser Ala Glu Ser Thr Pro Met Gln  
 885 890 895  
 Val Val Thr Leu Leu Asn Asp Leu Tyr Thr Cys Phe Asp Ala Val Ile  
 900 905 910  
 Asp Asn Phe Asp Val Tyr Lys Val Glu Thr Ile Gly Asp Ala Tyr Met  
 915 920 925  
 Val Val Ser Gly Leu Pro Val Arg Asn Gly Arg Leu His Ala Cys Glu  
 930 935 940  
 Val Ala Arg Met Ala Leu Ala Leu Leu Asp Ala Val Arg Ser Phe Arg  
 945 950 955 960  
 Ile Arg His Arg Pro Gln Glu Gln Leu Arg Leu Arg Ile Gly Ile His  
 965 970 975  
 Thr Gly Pro Val Cys Ala Gly Val Val Gly Leu Lys Met Pro Arg Tyr  
 980 985 990  
 Cys Leu Phe Gly Asp Thr Val Asn Thr Ala Ser Arg Met Glu Ser Asn  
 995 1000 1005  
 Gly Glu Ala Leu Lys Ile His Leu Ser Ser Glu Thr Lys Ala Val Leu  
 1010 1015 1020  
 Glu Glu Phe Gly Gly Phe Glu Leu Glu Leu Arg Gly Asp Val Glu Met  
 1025 1030 1035 1040  
 Lys Gly Lys Gly Lys Val Arg Thr Tyr Trp Leu Leu Gly Glu Arg Gly  
 1045 1050 1055  
 Ser Ser Thr Arg Gly  
 1060

<210> 34  
 <211> 430  
 <212> PRT  
 <213> Homo sapiens

<400> 34

Gly Asn Leu Thr Val Ala Val Val Leu Pro Leu Ala Asn Thr Ser Tyr  
 1 5 10 15  
 Pro Trp Ser Trp Ala Arg Val Gly Pro Ala Val Glu Leu Ala Leu Ala  
 20 25 30  
 Gln Val Lys Ala Arg Pro Asp Leu Leu Pro Gly Trp Thr Val Arg Thr  
 35 40 45  
 Val Leu Gly Ser Ser Glu Asn Ala Leu Gly Val Cys Ser Asp Thr Ala  
 50 55 60  
 Ala Pro Leu Ala Ala Val Asp Leu Lys Trp Glu His Asn Pro Ala Val  
 65 70 75 80  
 Phe Leu Gly Pro Gly Cys Val Tyr Ala Ala Ala Pro Val Gly Arg Phe  
 85 90 95

Thr Ala His Trp Arg Val Pro Leu Leu Thr Ala Gly Ala Pro Ala Leu  
 100 105 110  
 Gly Phe Gly Val Lys Asp Glu Tyr Ala Leu Thr Thr Arg Ala Gly Pro  
 115 120 125  
 Ser Tyr Ala Lys Leu Gly Asp Phe Val Ala Ala Leu His Arg Arg Leu  
 130 135 140  
 Gly Trp Glu Arg Gln Ala Leu Met Leu Tyr Ala Tyr Arg Pro Gly Asp  
 145 150 155 160  
 Glu Glu His Cys Phe Phe Leu Val Glu Gly Leu Phe Met Arg Val Arg  
 165 170 175  
 Asp Arg Leu Asn Ile Thr Val Asp His Leu Glu Phe Ala Glu Asp Asp  
 180 185 190  
 Leu Ser His Tyr Thr Arg Leu Leu Arg Thr Met Pro Arg Lys Gly Arg  
 195 200 205  
 Val Ile Tyr Ile Cys Ser Ser Pro Asp Ala Phe Arg Thr Leu Met Leu  
 210 215 220  
 Leu Ala Leu Glu Ala Gly Leu Cys Gly Glu Asp Tyr Val Phe Phe His  
 225 230 235 240  
 Leu Asp Ile Phe Gly Gln Ser Leu Gln Gly Gly Gln Gly Pro Ala Pro  
 245 250 255  
 Arg Arg Pro Trp Glu Arg Gly Asp Gly Gln Asp Val Ser Ala Arg Gln  
 260 265 270  
 Ala Phe Gln Ala Ala Lys Ile Ile Thr Tyr Lys Asp Pro Asp Asn Pro  
 275 280 285  
 Glu Tyr Leu Glu Phe Leu Lys Gln Leu Lys His Leu Ala Tyr Glu Gln  
 290 295 300  
  
 Phe Asn Phe Thr Met Glu Asp Gly Leu Val Asn Thr Ile Pro Ala Ser  
 305 310 315 320  
 Phe His Asp Gly Leu Leu Leu Tyr Ile Gln Ala Val Thr Glu Thr Leu  
 325 330 335  
 Ala His Gly Gly Thr Val Thr Asp Gly Glu Asn Ile Thr Gln Arg Met  
 340 345 350  
 Trp Asn Arg Ser Phe Gln Gly Val Thr Gly Tyr Leu Lys Ile Asp Ser  
 355 360 365  
 Ser Gly Asp Arg Glu Thr Asp Phe Ser Leu Trp Asp Met Asp Pro Glu  
 370 375 380  
 Asn Gly Ala Phe Arg Val Val Leu Asn Tyr Asn Gly Thr Ser Gln Glu  
 385 390 395 400  
 Leu Val Ala Val Ser Gly Arg Lys Leu Asn Trp Pro Leu Gly Tyr Pro  
 405 410 415  
 Pro Pro Asp Ile Pro Lys Cys Gly Phe Asp Asn Glu Asp Pro  
 420 425 430

<210> 35  
 <211> 1047  
 <212> PRT  
 <213> Homo sapiens

<400> 35

Met Ala Leu Pro Ser Leu Leu Leu Leu Val Ala Ala Leu Ala Gly Gly  
 1 5 10 15  
 Val Arg Pro Pro Gly Ala Arg Asn Leu Thr Leu Ala Val Val Leu Pro  
 20 25 30  
 Glu His Asn Leu Ser Tyr Ala Trp Ala Trp Pro Arg Val Gly Pro Ala  
 35 40 45  
 Val Ala Leu Ala Val Glu Ala Leu Gly Arg Ala Leu Pro Val Asp Leu  
 50 55 60  
 Arg Phe Val Ser Ser Glu Leu Glu Gly Ala Cys Ser Glu Tyr Leu Ala  
 65 70 75 80

Pro Leu Ser Ala Val Asp Leu Lys Leu Tyr His Asp Pro Asp Leu Leu  
 85 90 95  
 Leu Gly Pro Gly Cys Val Tyr Pro Ala Ala Ser Val Ala Arg Phe Ala  
 100 105 110  
 Ser His Trp Arg Leu Pro Leu Leu Thr Ala Gly Ala Val Ala Ser Gly  
 115 120 125  
 Phe Ser Ala Lys Asn Asp His Tyr Arg Thr Leu Val Arg Thr Gly Pro  
 130 135 140  
 Ser Ala Pro Lys Leu Gly Glu Phe Val Val Thr Leu His Gly His Phe  
 145 150 155 160  
 Asn Trp Thr Ala Arg Ala Ala Leu Leu Tyr Leu Asp Ala Arg Thr Asp  
 165 170 175  
 Asp Arg Pro His Tyr Phe Thr Ile Glu Gly Val Phe Glu Ala Leu Gln  
 180 185 190  
 Gly Ser Asn Leu Ser Val Gln His Gln Val Tyr Ala Arg Glu Pro Gly  
 195 200 205  
 Gly Pro Glu Gln Ala Thr His Phe Ile Arg Ala Asn Gly Arg Ile Val  
 210 215 220  
 Tyr Ile Cys Gly Pro Leu Glu Met Leu His Glu Ile Leu Leu Gln Ala  
 225 230 235 240  
 Gln Arg Glu Asn Leu Thr Asn Gly Asp Tyr Val Phe Phe Tyr Leu Asp  
 245 250 255  
 Val Phe Gly Glu Ser Leu Arg Ala Gly Pro Thr Arg Ala Thr Gly Arg  
 260 265 270  
 Pro Trp Gln Asp Asn Arg Thr Arg Glu Gln Ala Gln Ala Leu Arg Glu  
 275 280 285  
 Ala Phe Gln Thr Val Leu Val Ile Thr Tyr Arg Glu Pro Pro Asn Pro  
 290 295 300  
 Glu Tyr Gln Glu Phe Gln Asn Arg Leu Leu Ile Arg Ala Arg Glu Asp  
 305 310 315 320  
 Phe Gly Val Glu Leu Gly Pro Ser Leu Met Asn Leu Ile Ala Gly Cys  
 325 330 335  
 Phe Tyr Asp Gly Ile Leu Leu Tyr Ala Glu Val Leu Asn Glu Thr Ile  
 340 345 350  
 Gln Glu Gly Gly Thr Arg Glu Asp Gly Leu Arg Ile Val Glu Lys Met  
 355 360 365  
 Gln Gly Arg Arg Tyr His Gly Val Thr Gly Leu Val Val Met Asp Lys  
 370 375 380  
 Asn Asn Asp Arg Glu Thr Asp Phe Val Leu Trp Ala Met Gly Asp Leu  
 385 390 395 400  
 Asp Ser Gly Asp Phe Gln Pro Ala Ala His Tyr Ser Gly Ala Glu Lys  
 405 410 415  
 Gln Ile Trp Trp Thr Gly Arg Pro Ile Pro Trp Val Lys Gly Ala Pro  
 420 425 430  
 Pro Ser Asp Asn Pro Pro Cys Ala Phe Asp Leu Asp Asp Pro Ser Cys  
 435 440 445  
 Asp Lys Thr Pro Leu Ser Thr Leu Ala Ile Val Ala Leu Gly Thr Gly  
 450 455 460  
 Ile Thr Phe Ile Met Phe Gly Val Ser Ser Phe Leu Ile Phe Arg Lys  
 465 470 475 480  
 Leu Met Leu Glu Lys Glu Leu Ala Ser Met Leu Trp Arg Ile Arg Trp  
 485 490 495  
 Glu Glu Leu Gln Phe Gly Asn Ser Glu Arg Tyr His Lys Gly Ala Gly  
 500 505 510  
 Ser Arg Leu Thr Leu Ser Leu Arg Gly Ser Ser Tyr Gly Ser Leu Met  
 515 520 525  
 Thr Ala His Gly Lys Tyr Gln Ile Phe Ala Asn Thr Gly His Phe Lys  
 530 535 540  
 Gly Asn Val Val Ala Ile Lys His Val Asn Lys Lys Arg Ile Glu Leu  
 545 550 555 560

Thr Arg Gln Val Leu Phe Glu Leu Lys His Met Arg Asp Val Gln Phe  
 565 570 575  
 Asn His Leu Thr Arg Phe Ile Gly Ala Cys Ile Asp Pro Pro Asn Ile  
 580 585 590  
 Cys Ile Val Thr Glu Tyr Cys Pro Arg Gly Ser Leu Gln Asp Ile Leu  
 595 600 605  
 Glu Asn Asp Ser Ile Asn Leu Asp Trp Met Phe Arg Tyr Ser Leu Ile  
 610 615 620  
 Asn Asp Leu Val Lys Gly Met Ala Phe Leu His Asn Ser Ile Ile Ser  
 625 630 635 640  
 Ser His Gly Ser Leu Lys Ser Ser Asn Cys Val Val Asp Ser Arg Phe  
 645 650 655  
 Val Leu Lys Ile Thr Asp Tyr Gly Leu Ala Ser Phe Arg Ser Thr Ala  
 660 665 670  
 Glu Pro Asp Asp Ser His Ala Leu Tyr Ala Lys Lys Leu Trp Thr Ala  
 675 680 685  
 Pro Glu Leu Leu Ser Gly Asn Pro Leu Pro Thr Thr Gly Met Gln Lys  
 690 695 700  
 Ala Asp Val Tyr Ser Phe Gly Ile Ile Leu Gln Glu Ile Ala Leu Arg  
 705 710 715 720  
 Ser Gly Pro Phe Tyr Leu Glu Gly Leu Asp Leu Ser Pro Lys Glu Ile  
 725 730 735  
 Val Gln Lys Val Arg Asn Gly Gln Arg Pro Tyr Phe Arg Pro Ser Ile  
 740 745 750  
 Asp Arg Thr Gln Leu Asn Glu Leu Val Leu Leu Met Glu Arg Cys  
 755 760 765  
 Trp Ala Gln Asp Pro Ala Glu Arg Pro Asp Phe Gly Gln Ile Lys Gly  
 770 775 780  
 Phe Ile Arg Arg Phe Asn Lys Glu Gly Gly Thr Ser Ile Leu Asp Asn  
 785 790 795 800  
 Leu Leu Leu Arg Met Glu Gln Tyr Ala Asn Asn Leu Glu Lys Leu Val  
 805 810 815  
 Glu Glu Arg Thr Gln Ala Tyr Leu Glu Glu Lys Arg Lys Ala Glu Ala  
 820 825 830  
 Leu Leu Tyr Gln Ile Leu Pro His Ser Val Ala Glu Gln Leu Lys Arg  
 835 840 845  
 Gly Glu Thr Val Gln Ala Glu Ala Phe Asp Ser Val Thr Ile Tyr Phe  
 850 855 860  
 Ser Asp Ile Val Gly Phe Thr Ala Leu Ser Ala Glu Ser Thr Pro Met  
 865 870 875 880  
 Gln Val Val Thr Leu Leu Asn Asp Leu Tyr Thr Cys Phe Asp Ala Ile  
 885 890 895  
 Ile Asp Asn Phe Asp Val Tyr Lys Val Glu Thr Ile Gly Asp Ala Tyr  
 900 905 910  
 Met Val Val Ser Gly Leu Pro Gly Arg Asn Gly Gln Arg His Ala Pro  
 915 920 925  
 Glu Ile Ala Arg Met Ala Leu Ala Leu Leu Asp Ala Val Ser Ser Phe  
 930 935 940  
 Arg Ile Arg His Arg Pro His Asp Gln Leu Arg Leu Arg Ile Gly Val  
 945 950 955 960  
 His Thr Gly Pro Val Cys Ala Gly Val Val Gly Leu Lys Met Pro Arg  
 965 970 975  
 Tyr Cys Leu Phe Gly Asp Thr Val Asn Thr Ala Ser Arg Met Glu Ser  
 980 985 990  
 Asn Gly Gln Ala Leu Lys Ile His Val Ser Ser Thr Thr Lys Asp Ala  
 995 1000 1005  
 Leu Asp Glu Leu Gly Cys Phe Gln Leu Glu Leu Arg Gly Asp Val Glu  
 1010 1015 1020  
 Met Lys Gly Lys Gly Lys Met Arg Thr Tyr Trp Leu Leu Gly Glu Arg  
 1025 1030 1035 1040

Lys Gly Pro Pro Gly Leu Leu  
1045

<210> 36  
<211> 541  
<212> PRT  
<213> homo sapiens

<400> 36

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Met Pro Ser Leu Leu Val Leu Thr Phe Ser Pro Cys Val Leu Leu Gly
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Trp Ala Leu Leu Ala Gly Gly Thr Gly Gly Gly Gly Val Gly Gly Gly
20      25      30
Gly Gly Gly Ala Gly Ile Gly Gly Arg Gln Glu Arg Glu Ala Leu
35      40      45
Pro Pro Gln Lys Ile Glu Val Leu Val Leu Leu Pro Gln Asp Asp Ser
50      55      60
Tyr Leu Phe Ser Leu Thr Arg Val Arg Pro Ala Ile Glu Tyr Ala Leu
65      70      75      80
Arg Ser Val Glu Gly Asn Gly Thr Gly Arg Arg Leu Leu Pro Pro Gly

      85      90      95
Thr Arg Phe Gln Val Ala Tyr Glu Asp Ser Asp Cys Gly Asn Arg Ala
100      105      110
Leu Phe Ser Leu Val Asp Arg Val Ala Ala Ala Arg Gly Ala Lys Pro
115      120      125
Asp Leu Ile Leu Gly Pro Val Cys Glu Tyr Ala Ala Ala Pro Val Ala
130      135      140
Arg Leu Ala Ser His Trp Asp Leu Pro Met Leu Ser Ala Gly Ala Leu
145      150      155      160
Ala Ala Gly Phe Gln His Lys Asp Ser Glu Tyr Ser His Leu Thr Arg
165      170      175
Val Ala Pro Ala Tyr Ala Lys Met Gly Glu Met Met Leu Ala Leu Phe
180      185      190
Arg His His His Trp Ser Arg Ala Ala Leu Val Tyr Ser Asp Asp Lys
195      200      205
Leu Glu Arg Asn Cys Tyr Phe Thr Leu Glu Gly Val His Glu Val Phe
210      215      220
Gln Glu Glu Gly Leu His Thr Ser Ile Tyr Ser Phe Asp Glu Thr Lys
225      230      235      240
Asp Leu Asp Leu Glu Asp Ile Val Arg Asn Ile Gln Ala Ser Glu Arg
245      250      255
Val Val Ile Met Cys Ala Ser Ser Asp Thr Ile Arg Ser Ile Met Leu
260      265      270
Val Ala His Arg His Gly Met Thr Ser Gly Asp Tyr Ala Phe Phe Asn
275      280      285
Ile Glu Leu Phe Asn Ser Ser Ser Tyr Gly Asp Gly Ser Trp Lys Arg
290      295      300
Gly Asp Lys His Asp Phe Glu Ala Lys Gln Ala Tyr Ser Ser Leu Gln
305      310      315      320
Thr Val Thr Leu Leu Arg Thr Val Lys Pro Glu Phe Glu Lys Phe Ser
325      330      335
Met Glu Val Lys Ser Ser Val Glu Lys Gln Gly Leu Asn Met Glu Asp
340      345      350
Tyr Val Asn Met Phe Val Glu Gly Phe His Asp Ala Ile Leu Leu Tyr
355      360      365
Val Leu Ala Leu His Glu Val Leu Arg Ala Gly Tyr Ser Lys Lys Asp
370      375      380
Gly Gly Lys Ile Ile Gln Gln Thr Trp Asn Arg Thr Phe Glu Gly Ile
385      390      395      400

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|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gly | Gln | Val | Ser | Ile | Asp | Ala | Asn | Gly | Asp | Arg | Tyr | Gly | Asp | Phe |
|     |     |     |     | 405 |     |     |     |     | 410 |     |     |     |     | 415 |     |
| Ser | Val | Ile | Ala | Met | Thr | Asp | Val | Glu | Ala | Gly | Thr | Gln | Glu | Val | Ile |
|     |     |     | 420 |     |     |     |     | 425 |     |     |     |     | 430 |     |     |
| Gly | Asp | Tyr | Phe | Gly | Lys | Glu | Gly | Arg | Phe | Glu | Met | Arg | Pro | Asn | Val |
|     |     | 435 |     |     |     |     | 440 |     |     |     |     | 445 |     |     |     |
| Lys | Tyr | Pro | Trp | Gly | Pro | Leu | Lys | Leu | Arg | Ile | Asp | Glu | Asn | Arg | Ile |
|     | 450 |     |     |     |     | 455 |     |     |     |     | 460 |     |     |     |     |
| Val | Glu | His | Thr | Asn | Ser | Ser | Pro | Cys | Lys | Ser | Ser | Gly | Gly | Leu | Glu |
| 465 |     |     |     |     | 470 |     |     |     |     | 475 |     |     |     |     | 480 |
| Glu | Ser | Ala | Val | Thr | Gly | Ile | Val | Val | Gly | Ala | Leu | Leu | Gly | Ala | Gly |
|     |     |     | 485 |     |     |     |     |     | 490 |     |     |     |     | 495 |     |
| Leu | Leu | Met | Ala | Phe | Tyr | Phe | Phe | Arg | Lys | Lys | Tyr | Arg | Ile | Thr | Ile |
|     |     |     | 500 |     |     |     |     | 505 |     |     |     |     | 510 |     |     |
| Glu | Arg | Arg | Thr | Gln | Gln | Glu | Glu | Ser | Asn | Leu | Gly | Lys | His | Arg | Glu |
|     | 515 |     |     |     |     |     | 520 |     |     |     |     | 525 |     |     |     |
| Leu | Arg | Glu | Asp | Ser | Ile | Arg | Ser | His | Phe | Ser | Val | Ala |     |     |     |
|     | 530 |     |     |     |     | 535 |     |     |     |     | 540 |     |     |     |     |